

AQT2-24/630 Front connector

AHT2-24/630 Rear connector

1. Brief introduction

1.1 Fully insulated and touchable connector with rated current 630A and rated voltage 24kV, apply for 12/20(24)kV XLPE cable.

1.2 Apply for cable section 25-400mm² and used in the power supply system, such as tank-transformer, ring main unit and cable distribution box, etc.

1.3 The relation between inner diameter of cable adaptor and cable section. (Please check the section mark at the terminal of adaptor before using it.)

Cable section(mm ²)	25	35	50	70	95	120	150	185	240	300	400
Inner diameter of adaptor(mm)	12.5	13.5	13.5	16.5	16.5	19.5	19.5	22.5	22.5	24.5	27.5

2. Working environment

Ambiance temperature is -40°C ~ +60°C. The long term working temperature, overload temperature and short circuit temperature meet the requirements of matching XLPE cable.

3. Structure

The third products which are mould by 3 layers special silicon rubber is advanced rear injecting composite products in China.

Installation instruction

1. Cold-shrinkable cable accessories installation

1.1(Fig1) Put the cable in its position, strip the outer sheath, steel armour and under layer. Use plastic strip to bind the steel armour in 40mm and burnish the painting; use PVC tape to wrap each phase copper screen layer terminal in 10mm, the steel armour is wrapped in, then remove the stuffings and plastic strip.

Attention: Because of the different size of gear and different installation method, the dimension shown in the figure 1 is for information only. The concrete size is up to the actual condition.

1.2(Fig2) Fix the earthing wire and wrap stuffing tape. Use constant force spring to fix the earthing wire (around 300 mm long and 25mm² section area) to the end of 3 phases screen copper, then use another constant force spring to fasten the earthing line to the steel armour and wrap enough tape at the place of constant force spring, trifurcate and top 30mm of out sheath.

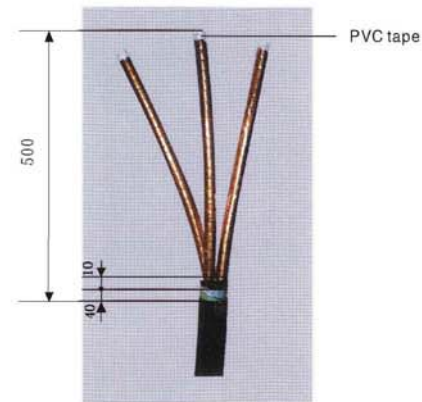


Fig.1

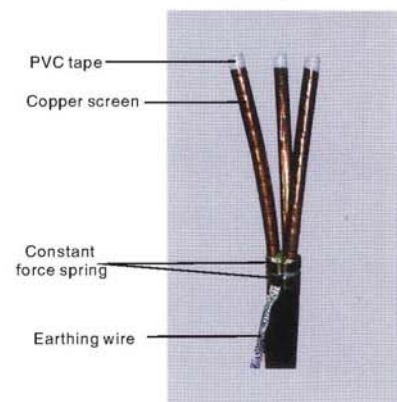


Fig.2

1.3 (Fig.3) Cold-shrinkable (heat-shrinkable) three-tube installation: Insert the three-tube in the trifurcate cable. Clean the surface of the out sheath under the large opening and wrap the earthing wire with stuffing tape to against the vapour infiltration. Draw out the supporting strip widdershins. Shrink the large opening part,(heat the three-tube and let it shrink at the trifurcate place), then use the same methold to shrink the three cores. At last, wrape the lage opening end with PVC tape.

Attention: Aline the three core cable according to the mounting position, size and placement to insure the connecting terminal hole is counter to the bole whole.

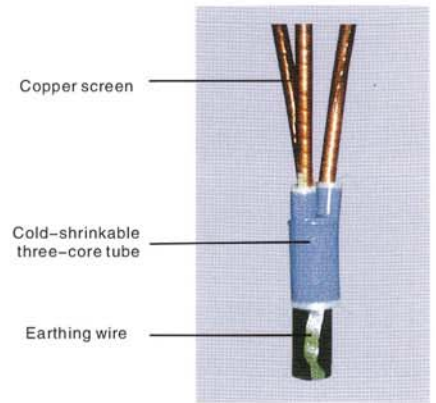


Fig.3

1.4 (Fig.4) Cold-shrinkable (heat-shrinkable) tube installation: Insert the long tube and overlap the three-tube in 15mm at least. Draw out the supporting strip widdershins. Heat and shrink it.

Attention: Use PVC tape to fix it first before cutting the tube, then cut in circle, axial cutting is not allowed.

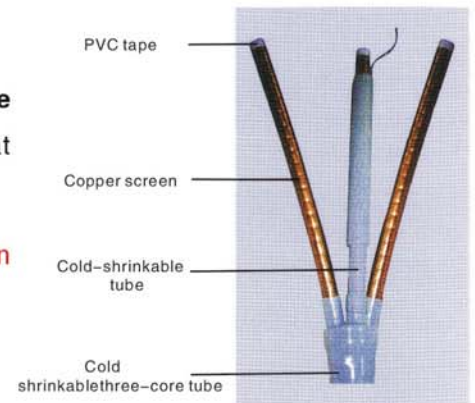
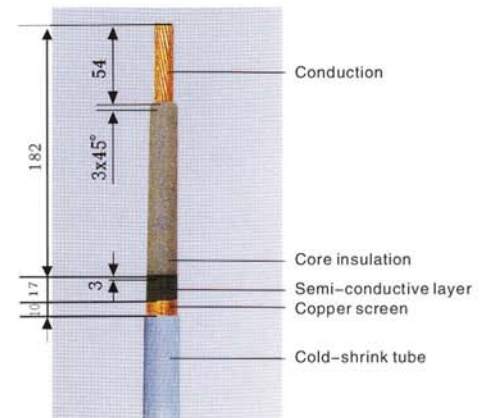


Fig.4

2. Cable stripping (Fig.5)

2.1 Follow up fig.5 to strip the cable, do not scratch the core insulation surface. It is a must to abrade any track which can be seen in the surface. There is a 3mm cone between semi-conductive layer and core insulation. Cut the cone from core insulation to semi-conductive. Do not hurt the core insulation. The cutting direction is from core insulation to semi-conductive layer.



Dimention of cable stripping

Fig.5

3. Wrap semi-conductive tape (Fig.6)

3.1 Lengthen the tape in ratio 150%. At the junction of copper acreen layer and cold shrinkable tube, wrap a cylinder into 20mm width and 1.2-1.5mm thickness. Make sure there is the wrapped tape in 7mm width.

Attention: The top of the conductive tape should not be cone, or it is hard to position the adaptor.

The semi-conductive tape must reach the lengthen requirement. Make sure the cable surface and the manipulator's finger are clean before any action.



(Fig.6)

4. Core insulation cleaning (Fig.7)

4.1 Use dielectric tissue to clean the cable from insulating layer to semi-conductive tape in one time, **Counter direction wiping is not allowed** Double check the insulation layer. if any residual semi-conductive particle, abrade it and clean with new dielectric paper..



Fig.7

5. Adaptor installation(Fig.8)

5.1 Use clean finger to coat the lubricant on the cable core insulation and inner hole of adaptor. Push the adaptor to the core insulation until closely contact with the semi-conductive tape stage (the end section is even to the tube).



Fig.8

6. Compress connecting terminal lug (Fig.9)

6.1 The hole direction of the terminal lug face to the plug, use compress wire clamer fix the terminal lug on the cable in 3 times.

Attention: The hole direction of the terminal lug should in the same line of connecting tube.



Fig.9

7. Various connectors installation(Fig.10)

Attention: The connecting part should be clean and coated with lubricant. The plug will be pushed in its position. Use M12 screw, flat washer, spring washer to lock the connecting lug and arrester lug. Make sure there is no frequent mounting problem occurred.(Fig.11)

7.1 Use dielectric tissue to clean the outer surface of adaptor and inner hole of front connector. Coat the lubricant on the out surface evenly, push the cable into the cable bottom hole.(Attention: the hole direction of the lug are in the same line with connecting tube; it is not allowed to lower the connecting lug, or the bolt is easy to be scratched).

7.2 Clean the mounting hole of front connector and daub the lubrication on the mounting face. Screw the M16 bolt into the plug. Push hard the plug with cable, front connector w/arrester or front incline connector w/arrester into the plug. Tightly lock the connecting lug and arrester terminal with M12 nut, flat washer and spring washer.(The plug should be pushed to its position).

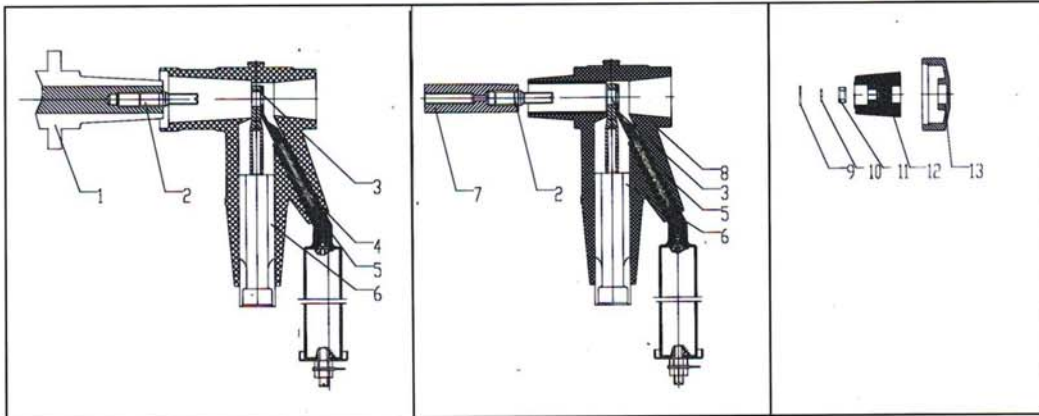
7.3 Insert the insulating plug coated with lubrication into the hole and screw with bolt.(Priority screw out bolt 10 mm if difficulty when screwing). Cover the cap on the insulating plug.

7.4 When mounting the rear plug, rear arrester or rear incline connector w/arrester, use spanner to screw the contacting rod into the lug, then screw the M16-M12 to the rod end. At last, push the connector to the hole of front connector.

7.5 Repeat 7.4 step for multi-joint plug.

7.6 After mounting for multi-joint plug, follow up step 7.3.

Mounting Order



- (Fig.10)
- 1. Tube
 - 2. Bolt
 - 3. Round copper lug
 - 4. Front incline connector
 - 5. Suspension surge arrester
 - 6. Cable adaptor
 - 13. Screen cover

- 7. Silver plating connecting rod
- 8. Rear incline connector
- 9. Flat washer
- 10. Spring washer
- 11. Insulating plug(M12)
- 12. Nut